

X3 Subgroup Annual Report

March 1994 to February 1995

TC X3J11 (C Language)

Tracking I project, Interpretations, and Production of TR

I. Executive Summary

X3J11 assisted SC22/WG14 in completing a Normative Addendum to the C Standard, with publication of Technical Corrigendum 1 and Record of Response 1, and in the ongoing processing of Defect Reports.

X3J11 completed the Technical Report on numeric extensions to Standard C on schedule and is in the process of editing it for final administrative processing.

X3J11 has submitted a project proposal to track the ISO C revision process already in progress within SC22/WG14.

II. Projects

II.1 Project 980-I

- a. Project Number and Title: 980-I C Programming Language Internationalization Addendum. [authorized by X3/92-2443R]
- b. Target Date: This addendum was targeted for adoption by the end of December, 1994. This target was met.
- c. Project Description: X3J11 functioned as the US TAG for the development of this Addendum (JTC1 22.20.02).
- d. Publications During Past Year: Amendment 1, Record of Responses 1, and Technical Corrigendum 1. Record of Responses 2 and Technical Corrigendum 2 have been completed and are being edited for final processing.
- e. Statement of Progress: The committee's time was spent primarily in processing defect reports and in continuing the Numerical C Technical Report. Of the 140 defect reports received all but three or four have been closed out. The remainder are receiving further consideration.

Some time was also spent on discussing and establishing guidelines for the revision process recently begun within SC22/WG14.

Over the year, excellent progress was made and all goals were met. Membership and interest is increasing and meetings are longer and more frequent now that work on a revision has begun.

- f. Statement of Status: All goals were met.
- g. Future Plans: We plan to continue recommending responses for defect reports to SC22/WG14 and to make a substantial contribution to a revision of the standard.

II.2 Project 813-DT

- a. Project Number and Title: 813-DT Numerical C Extension [authorized by X3/90-2054R]
- b. Target Date: December 1994.
- c. Project Description: The principal technical issues were: Optimization of pointer usage, Complex arithmetic, Variable-sized arrays, Enhanced floating-point support, Data parallelism, Extended initializers, Compound literals, and Extended integer support.
- d. Publications During the Past Year: None.
- e. Statement of Progress: All subgroups have completed their technical work.
- f. Statement of Status: All parts of the Technical Report have been completed and accepted. Publication is expected mid-to-late 1995 at which time this project will have been completed.
- g. Future Plans: Of the eight topics addressed in the Technical Report, all but one have been submitted as part of the US contribution to the C Standard revision process.

III. Committee Activities

- a. Previous Year's Meetings: June '94 San Jose, CA; December '94 Plano, TX,
- b. Next Year's Planned Meetings: June '95 Copenhagen, Denmark; October '94 Nashua, NH.
To best utilize the considerable technical expertise available in X3J11, X3J11 and SC22/WG14 have agreed to hold co-located meetings. Two out of every three meetings will be located in North America.
- c. Officers:

Chair	Vice-Chair (out-going)	Vice-Chair (in-coming)
Rex Jaeschke DEC Professional 2051 Swans Neck Way Reston, VA 22091 Last trained: mid-92	Thomas Plum Plum Hall Inc. PO Box 44610 Kamuela HI 96743 Last trained: mid-92	Tom MacDonald Cray Research, Inc. 655F Lone Oak Drive Eagan, MN 55121 Last trained: mid-92

International Representative	Vocabulary Representative
John Benito Perennial Suite 130 3004 Mission Street Santa Cruz, CA 95060 Last trained: Sep-93	Andrew E. Johnson Open Software Foundation 1 Cambridge Center Cambridge, MA 02142 Last trained:

- d. Membership: See attachment.

- e. Liaison Activities: SC22/WG14 (ISO C), X3J16 (ANSI C++) and SC22/WG21 (ISO C++). We have continued to work with the C++ standardization committees to document and minimize unnecessary incompatibilities between the common subset these languages share. We will continue to do so when considering C++-like features for inclusion in a revised C Standard.
- f. Administration Matters of Note: None.
- g. Procedural Matters of Note: None.
- h. Recommendations: None.

IV. Anticipated Projects

A project proposal has been submitted proposing that X3J11 formally assist SC22/WG14 in its revision efforts as an RI project.

V. Future Trends in this Technical Area

The vast majority of the participants on X3J11 and SC22/WG14 believe an enhanced C language has a significant role to play in future software development. Some parts of C++ likely will be adopted in future revisions of C. Other efforts will also impact C's future. These include the technical report recently produced by X3J11, internationalization, and cross-language standards and bindings.